

Program Description/Textbook or Print Instructional Material

Vendor: Delmar Learning Web Address: www.delmar.com

Title: Refrigeration & Air Conditioning Technology

Author: Whitman Copyright: 2000

ISBN: 0-7668-0667-7 Course/Content Area: Vocational and Career Education; Industrial Technology;
Air Conditioning Technology

Intended Grade or Level: 9-12 Readability Level: 10.8 (Flesch Kincaid)

List Price: 96.95 Lowest Wholesale Price: 71.75

All materials bid as of July 1, 2003 must be offered in an alternative format for students who require reading accommodations. A description of the levels of accommodation is included on p. 8-9 of this bid packet. The Kentucky Department of Education must receive a copy of the alternative format if the material is placed on the State Multiple List.

Level of Accommodations (Level One, Two or Three) Level Three

If Level Two or Three, please provide rationale for not meeting Level One Compliance It is not financially feasible for our products to meet Level One at this time.

FEATURES

DISCLAIMER: The features of each book or program were developed by the publisher and do not reflect the opinion of the State Review Team, State Textbook Commission, nor of the Kentucky Department of Education.

Content

- new units on Indoor Air Quality and Geothermal Heat Pumps
- expanded coverage of technician certification programs
- increased emphasis on customer relations
- addresses environmental issues such as ozone depletion, global warming, and alternative refrigerants
- covers heating anticipators in thermostats and single phase motor starting relays

Student Experiences

- realistic Service Calls throughout the text prepare learners for work-like situations

Assessment

Refrigeration and Air Conditioning Technology, 4E covers the fundamentals and practical applications for understanding and maintaining all heating and cooling systems. The comprehensive coverage of the basic theory, latest terminology, diagnostic methods, and repair procedures, combine to make this the most complete HVAC-R book available today. Advances in technology, procedures, and equipment are addressed throughout this new edition, with an increased emphasis on digital electronic controls and system efficiency. Certification and safety coverage are also expanded upon in this new edition.

Organization

- updated Safety Precautions, including OSHA requirements
- Recovery/Recycling/Reclaiming and other environmental issues are highlighted throughout
- practical troubleshooting procedures are integrated throughout the text

Resource Materials

Gratis Items To Be Provided And Under What Conditions

Instructor's Resource Kit (0-7668-0670-7) Free 1 per teacher

Available Ancillary Materials

RESEARCH DATA AND EVIDENCE OF EFFECTIVENESS

DISCLAIMER: The research data and evidence of effectiveness was provided by the publisher and does not reflect the opinion of the State Review Team, State Textbook Commission, nor the Kentucky Department of Education.

***NOTE:** Please complete this section by indicating the research data and evidence of effectiveness or give a web site where the information is located. If there is no research data and evidence of effectiveness, please indicate **"not available"** in the space.*



Group V - Career/Technical Vocational/Practical Living Education Instructional Materials Evaluation Tool Manufacturing Career Cluster



Title:Refrigeration & Air Conditioning Technology/Cost \$71.75

Publisher:Delmar

Item Evaluated:Student's Textbook & Lab book & Instructor's Guide w/CD

Copyright Date:2000

Evaluator:Tomlinson/Wilson

Content Level:9-12

Date of Evaluation7/28/03

Level of Alternative Format

Level 1 – Full Compliance

Level 2 – Provisional Compliance

Level 3 – Marginal Compliance

This section completed by Exceptional Children Services

Overall Strengths and/or Weaknesses

Disclaimer: Comments on the strengths and/or weaknesses of each book, material or program were written by members of the State Textbook/Instructional Materials Review Team and reflect their opinions . They do not reflect the opinions of the State Textbook Commission nor the Kentucky Department of Education. In addition, the State Textbook/ Instructional Materials Review Team completed each evaluation form during the week of July 28-Aug. 1, 2003. In order to maintain the integrity of the of the review team's comments, editing was limited to spelling and punctuation.

Recommendations:

☒ Recommended by reviewers to State Textbook Commission

☐ Not recommended by reviewers to State Textbook Commission

Publisher's Explanation of Reviewer's Comments: By action of the State Textbook Commission, publishers are provided limited space, 150 words, to respond to what they may consider factual errors made by the reviewers in the evaluation.



**Group V - Career/Technical
Vocational/Practical Living Education
Instructional Materials Evaluation Tool
Manufacturing Career Cluster**



Title: Refrigeration & Air Conditioning Technology		Publisher Delmar
Technology Management Summary Data:	20 possible points	_____18___ points earned
Technology Management Comments:		
Technology Presentation/Interface Summary Data:	36 possible points	_____34___ points earned
Technology Presentation/Interface Comments:		
Content Summary Data:	140 possible points	_____62___ points earned
Content Comments:		
Instruction & Management Summary Data	52 possible points	_____42___ points earned
Instruction & Management Comments:		
Organization & Structure Summary Data	36 possible points	_____30___ points earned
Organization & Structure Comments:		
Resource Material Summary Data	40 possible points	_____19___ points earned
Resource Material Comments:		



Group V - Career /Technical & Vocational/Practical Living

Electronic Instructional Media Review Form

Stand Alone/Independent or Integrated Software for Manufacturing Career Cluster



Equipment (circle or change fill color)	Grade Level (circle or change fill color)	Audience (circle or change fill color)	Format (circle or change fill color)	Cost _____	
Windows	Primary	Individual	Stand Alone/Independent	_____ single copy	_____ site license
Macintosh	Intermediate	Small Group	Integrated	_____ network version	_____ school version
CD-ROM	Middle	Large Group	Supplemental	_____ lab pack of _____ copies	_____ x _____ online
DVD	High		In lieu of basal test		
Sound					
Other					

If other, explain

Type of Software: Check all that apply	_____ Simulation	_____ Management	_____ Interdisciplinary	_____ Problem Solving	_____ x _____ Tutorial
_____ Exploratory	_____ Creativity	_____ x _____ Drill and Practice	_____ x _____ Critical Thinking	_____ Utility	_____ Other:

Rating Scale:	3—Some of the time	1—None of the time
4—All or the time	2—Minimally	0— Not applicable

Management	Rating
Allows customizing for individual learning needs.	3
Allows students to exit and resume at a later time.	4
Keeps a students performance record, where needed.	4
Allows control of various aspects of the software (e.g., turning sound off).	3
Allows for printed reports.	4
Comments:	Total
	18

Presentation/Interface	Rating
Presents material in an organized manner.	4
Has consistent, easy-to-use, on-screen instructions.	4
Has developmentally correct presentation format.	4
Adapts to different learning environments (learning styles/multiple intelligences, etc.)	3
Accessible for special needs students.	4
Runs smoothly, without long delays.	4
Presents easy-to-view text and graphics.	4
Presents easy-to-hear and understand sounds.	0
Avoids unnecessary screens, sounds, and graphics.	3
Provides immediate, appropriate feedback.	4
Comments:	Total
	34

Content— Manufacturing Career Cluster	Rating
Electrical/Electronic Safety	4
Direct Current Circuits/Lab	0
Alternating Current/Lab	4
Electrical Principals	4
Electronic Devices and Circuits	4
Electronic Drafting	0
Microcomputer Operating Systems	3
Fundamentals of Machine Tools	0
Applied Machining	0
Manual Programming CAD/CAM/CNC	0
Blueprint Reading	4
Computer Fundamentals	4
Fluid Power/Lab	0
Industrial Maintenance Electric Motor/Lab	0

Rating Scale:	2—Minimally
4—All or the time	1—None of the time
3—Some of the time	0— Not applicable

Content— Manufacturing Career Cluster	Rating
Maintaining Industrial Equipment	3
Industrial Safety	4
Pneumatic Systems/Lab	1
Technical Communications	0
Technical Math	4
SMAW Plate Labs	0
Gas Tungsten Arc Welding/Lab	0
Certification Welding/Lab	0
Oxy-fuel Cutting Lab	0
Wood Product Manufacturing	0
Wood Finishing	0

Rating Scale:	2—Minimally
4—All or the time	1—None of the time
3—Some of the time	0— Not applicable

Content— Manufacturing Career Cluster	Rating
Technical Drawing and Blueprint Reading	4
Millwork Technology	0
Furniture Technology	0
Basic Refrigeration and Air Conditioning	4
Electrical Components and Test Equipment	4
Gas/Electric Appliance Applications	4
Maintenance of Industrial Equipment	4
Polymer Science and Testing	0
Environmental Practices	3
Project Lead The Way (Pre-Engineering)	0
Comments:	Total 62

Rating Scale:	2—Minimally
4—All or the time	1—None of the time
3—Some of the time	0— Not applicable

Instruction and Assessment	Rating
Identifies a Sense of Purpose	3
Builds on Student Ideals	3
Engages Students	3
Develops Computer Maintenance Ideas	0
Promotes Student Thinking	4
Assesses Student Progress	4
Enhances The Learning Environment	3
Reading level is appropriate for interest and ability level of intended student group; level remains consistent throughout.	2
Commonwealth Accountability Testing System (CATS) "like" Assessment is provided	4
Variety of Assessments (diagnostic, formative, summative, open response, multiple choice, individual, small group, oral, demonstrations, presentations, self and peer performance, portfolio prompts) is included.	4
Includes activities and opportunities for integration of technology.	4
Reflects researched-based practices (e.g. hands-on activities, technology, problem-solving situations)	4
Differentiation techniques and activities suggested.	4
Comments:	Total 42

Rating Scale:	3 – Some potential for learning	1 - Not present
4 – High potential for learning	2 – Little potential for learning	0 – Not applicable

Organization and Structure	Rating
Organization is logical and allows for spiraling of content.	4
Vocabulary and key terms are clearly defined and easily accessible within each lesson.	4
Visual illustrations (e.g. graphs, charts, models) and examples are clearly presented and content-related.	4
Illustrations and language reflect diversity (e.g. racial, ethnic, cultural, age, gender, disabilities).	0
Legible type, length of lines, spacing, and page layout and width of margins contribute to overall appearance and use.	2
Student materials seem durable and conducive to daily use.	4
Includes sufficient glossary, index and appendices.	4
Employs accurate grammar and spelling	4
Organization of material can be effectively used with Standards Based Units, Core Content and Program of Studies.	4
Comments:	Total 30

Resource Materials	Rating
Teacher materials coordinate easily with student materials (e.g. additional resources included at point of need, student pages shown, integration of technology indicated)	4
Activities are included that adapt to the various learning styles, intelligences, and interest/ability levels.	3
Extension activities including adaptations and accommodations for students with special needs.	3
Resources provide objectives, background information, common student errors, hints, advice for lesson implementation and real-world connections, connections with career and/technology and references (e.g. solution manuals, study guides)	2
Suggestions are made for integration of themes and /or interdisciplinary instruction.	2
Integration opportunities suggested and examples given.	1
Teacher resources are available online.	4
Online resources available – Repeat of information in text.	0
Online resources available – Practice skills only.	0
Online resources available – New application materials.	0
Comments: Www.delmarlearning.com/resources.ocldsp	Total 19

Rating Scale:	2—Minimally
4—All or the time	1—None of the time
3—Some of the time	0— Not applicable